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PATENT APPLICATION
Docket No. 5038-138 (P12510)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Jeremy Burr and Rajgopal Ramamoorthy

Serial No.: 10/006,171 Examiner: Henry N. Tran

Filed: December 4, 2001 Group Art Unit: 2674

For: INDUCTIVE POWER SOURCE FOR PERIPHERAL DEVICES

Date: March 15, 2006

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TRANSMITTAL OF APPEAL BRIEF

This Appeal Brief is in furtherance of the Notice of Appeal mailed in this case on December 15, 2005. Appeal is taken from the Examiner's Final Office Action mailed August 15, 2005 finally rejecting claims 1-30, and the Advisory Action mailed November 7, 2005 continuing the rejection of claims 1-30.

Also enclosed is:

☒ Form PTO-2038 authorizing payment in the amount of $620.00 for the Appeal Brief fee ($500.00) and one month extension fee ($120.00)

☒ Applicant petitions the Commissioner to extend the time for response. The extension fee is included and a duplicate copy of this form is enclosed.

☒ Any deficiency or overpayment should be charged or credited to deposit account number 13-1703.

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Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

Joseph S. Makuch
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Docket No. 5038-138
Intel Docket No. P12510

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In re application of:	Jeremy Burr and Rajgopal Ramamoorthy		
Serial No.	10/006,171	Examiner:	Henry N. Tran
Filed:	December 4, 2001	Group Art Unit:	2674
For:	INDUCTIVE POWER SOURCE FOR PERIPHERAL DEVICES		
Confirmation No.	2907		
Date:	March 15, 2006		

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The fees required under §1.17(c) and any required petition for extension of time for filing this Brief and fees therefor are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

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FOR TRADEMARKS 2900 CRYSTAL DRIVE ARLINGTON, VA 22202-3513

ON: 3.15.06

REAL PARTY IN INTEREST

The present application has been assigned to the following party:

Intel Corporation
2200 Mission College Boulevard
P.O. Box 58119
Santa Clara, California 95052-8119

RELATED APPEALS AND INTERFERENCES

The Board's decision in the present Appeal will not directly affect, or be directly affected, or have any bearing on any other appeals or interferences known to the appellant, or to the Applicant's legal representative.

STATUS OF CLAIMS

Claims pending in the application: 1-30

Claims rejected: 1-30

Claims appealed: 1-30

STATUS OF AMENDMENTS

No amendments have been filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is drawn to a system for inductively transferring electrical power to a computer peripheral device which includes a base unit having a source loop solenoid with an axis perpendicular to the planar surface of the base unit and the peripheral device having a victim loop inductively coupled to the base unit. An example embodiment of such a system is showed in Fig. 1 whereas Fig. 2 shows a base unit having a source loop solenoid with an axis perpendicular to the planar surface of the base unit.

Claim 9, dependent on claim 1, has an added limitation which states that the peripheral device of claim 1 further includes a rechargeable battery and a recharging circuit coupled between the victim loop and the rechargeable battery. The limitation of claim 9 can be found, for example, in Fig. 4.

Claim 14 is drawn to a system for supplying power to a computer mouse, where the base unit has a source loop that has an axis substantially perpendicular to a planar surface of the base unit and the mouse has a victim loop coupled to a load circuit. An example embodiment of such a system is showed in Fig. 1 whereas Fig. 2 shows a base unit having a source loop solenoid with an axis perpendicular to the planar surface of the base unit.

Claim 15, dependent on claim 14, has an added limitation which states that the computer mouse of claim 14 further comprises a rechargeable battery and a load circuit coupled to the rechargeable battery. The limitation of claim 15 can be found, for example, in Fig. 4.

Claim 23 is drawn to a method of powering a computer peripheral device having a source loop and a victim loop and by applying a driving signal to the source loop solenoid, where the source loop solenoid has an axis substantially perpendicular to a planar surface over which the device is mounted. An example embodiment of such a system is showed in Fig. 1 whereas Fig. 2 shows a base unit having a source loop solenoid with an axis perpendicular to the planar surface of the base unit.

Claim 27 is drawn on a method of recharging a battery in a computer mouse , where a magnetic field is created by a source loop solenoid (that has an axis substantially perpendicular to a planar surface over which the computer mouse is moved) and the magnetic field interacts with a victim loop in the computer mouse. An example embodiment showing the source loop and the victim loop in the computer mouse is shown in Fig. 2 and the rechargeable is shown in Fig. 4.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether the terms "axis", "perpendicular", and "planar surface" in claims 1, 14, 23 and 27 are supported by the specification.

2. Whether claims 1-8, 10-12, 14, 18-20, 22-24 and 26 are unpatentable under 35 USC 103(a) based on Japanese Patent Application P2001-15994A to Shimono ("Shimono") in view of U.S. Patent Application publication 2002/0036621 to Liu et al ("Liu").

3. Whether claims 27-29 are unpatentable under 35 USC 103(a) based on published UK Patent Application GB 2,314,470 to Tien ("Tien") in view of Liu.

4. Whether claims 9,13,15,21 and 25 are unpatentable under 35 USC 103(a) based on Shimono in view of Liu and further in view of Tien.

5. Whether claims 16 and 17 are unpatentable under 35 USC 103(a) based on Shimono in view of Liu and further in view of U.S. Patent 4,754,268 to Mori.

6. Whether claim 30 is unpatentable under 35 USC 103(a) based on Tien in view of Liu and further in view of Shimono.

ARGUMENT

Support for the terms "axis", "perpendicular", and "planar surface"

The specification is objected to under 37 CFR 75(d)(1) as failing to provide antecedent basis for the claim terms "axis", "perpendicular", and "planar surface". Although the Examiner has characterized this as an objection to the specification, in substance, this is a rejection of claims 1, 14, 23 and 27, which contain these terms, for failure to satisfy the written description requirement. Since this involves the merits of the claims, it is subject to review by the Board. *See* MPEP 706.01.

Compliance with the written description requirement only requires that the meaning of the claims may be ascertainable by reference to the description. *See Lampi Corp. v. American Power Prods., Inc.*, 56 U.S.P.Q.2d 1445, 1455 (Fed. Cir. 2000) ("In order to satisfy the written description requirement, the disclosure as originally filed need not provide *in haec verba* ['in these words'] support for the claimed matter at issue."). Even if the exact words "axis", "perpendicular", and "planar surface" do not appear in the specification, a person of ordinary skill in the art would understand the meaning of these terms with reference to the description. For example, it would be apparent from the drawings and specification that the mouse pad surface referenced at page 13, line 5 of the specification would be a planar surface. Likewise, the meaning of the terms "axis" and "perpendicular" would be apparent to a person of ordinary skill in the art with reference to the specification and drawings.

Rejections under 35.U.S.C. §103(a)

Claims 1-8, 10-14, 16-20, 22-26

Claim 1 recites a system for inductively transferring electrical power to a computer peripheral device, where the source loop solenoid in the base unit has "...an axis substantially perpendicular to a planar surface of the base unit...". This is illustrated in Figs. 1, 6A and 6B of the application and several places in the specification. In contrast, Liu's source solenoid has an axis that runs circumferentially around the periphery of a pad, and thus the source

solenoid axis is parallel to the planar surface of the base pad, rather than perpendicular as recited in claim 1.

Liu discloses a touch sensing system 31 that includes an antenna 34 disposed at the periphery of the touch sensitive area 32, wherein the antenna 34 may comprise one or more turns of wire or conductor about the perimeter of the assembly 33 (paragraph 30). The touch sensing antenna 34 is analogous to the source solenoid loop in the base unit of the current invention. Liu also teaches a touch sensing device 21, which is analogous to the applicant's computer peripheral device. Liu's touch sensing device includes an antenna 24, which may comprise of a coil formed of a plurality of turns of wires about an axis that is centered in the base or housing of the device (paragraph 32). The antenna 24 of Liu's is analogous to the victim solenoid coil in the peripheral device of the applicant.

The examiner, in his final rejection, alleges that Liu's source loop solenoid 34 is formed of one or more turns of wire about an axis that is centered on the perimeter of the planar surface of the base or assembly 33 and he refers to Fig. 1 and paragraphs 30 and 32 of Liu. This argument, however, appears to be based on an incorrect reading of Liu. Liu discloses that the "antenna 34 may comprise one or more turns of wire or conduct about the perimeter of the assembly 33...", which implies that the axis of antenna 34 lies along the perimeter of the assembly 33 and thus has an axis parallel to the planar surface of the pad 33, rather than perpendicular as recited in claim 1.

The examiner, in the "response to the arguments" section of the final rejection, alleges that Liu's solenoid 34 runs circumferentially around the periphery of the pad 33, it has an axis parallel to the planar surface of the pad, and an axis perpendicular with the planar surface. To support his argument, the examiner points out that Lie says "an axis that is centered in the base or housing of the device" and "the antenna may comprise ... any sort of axis..." and points out to Fig. 1 and paragraph [0032] of Liu. This argument, however, appears to be based on an incorrect reading of Liu. Paragraph [0032] of Liu teaches about the coil 24 in a *touch stimulating device* which relates to the *victim coil* of the invention rather than the *source loop solenoid* of the base unit as recited in claim 1. Also, it is clear from Fig. 1 of Liu that the axis of antenna 34 (which is analogous to the *source loop solenoid* of the base unit as recited in claim 1) lies along the perimeter of the assembly 33 and thus has an axis parallel to the planar surface of the pad 33, rather than perpendicular as recited in claim 1.

For at least the reasons stated above, a *prima facie* case of obviousness has not been established in view of Liu with respect to claim 1 and associated dependent claims 2-8 and 10-13. Other independent claims 14 and 23 also have similar limitations regarding the source solenoid loop having an axis substantially perpendicular to the planar surface of the base. Hence, for the same reason, a *prima facie* case of obviousness has not been established in view of Liu with respect to claims 14, 23 and associated dependent claims 16-22, 24-26.

Claims 9, 15, 21, 27-30

Claim 9 recites a rechargeable battery and a recharging circuit coupled between the victim loop and the rechargeable battery. The examiner further alleges that it would have been obvious to modify Shimono to include a battery and recharging circuit as taught by Tien in order to permit use of a peripheral device when not in proximity of the source loop by incorporating a rechargeable battery. However, this is an impermissible hindsight reconstruction using the Applicant's disclosure as a source of motivation or suggestion for combining prior art references, rather than finding the motivation in the prior art. Thus, a *prima facie* case of obviousness has not been established with respect to claim 9. Similar arguments apply to claims 15, 21 and 27-30 which also recite rechargeable batteries and charging circuits.

CONCLUSION

Applicant requests that the rejection of claims 1-30 be reversed.

Respectfully submitted,

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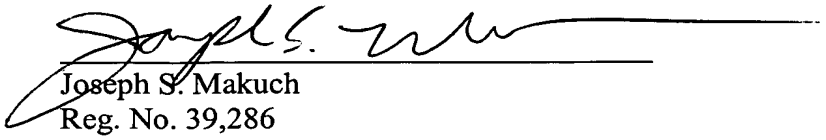

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APPENDIX

The claims involved with the appeal read as follows:

1. (Rejected) A system for inductively transferring electrical power to a computer peripheral device during normal operation of the peripheral device, comprising:

a base unit including:

a source loop solenoid having an axis substantially perpendicular to a planar surface of the base unit to generate a magnetic field,

a loop power circuit to provide a signal to drive the source loop, and

a power source coupler structured to provide power to the loop power circuit when the power source coupler is coupled to a power source; and

the peripheral device having a victim loop and structured to be inductively coupled to the base unit while the peripheral device is in operable condition.

2. (Rejected) The power transfer system of claim 1 wherein the peripheral device is a computer mouse.

3. (Rejected) The power transfer system of claim 2 wherein the base unit is incorporated in a mousepad.

4. (Rejected) The power transfer system of claim 1 wherein the base unit comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

5. (Rejected) The power transfer system of claim 1 wherein the peripheral device comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

6. (Rejected) The power transfer system of claim 5 wherein the peripheral device further comprises a data transmitter having an antenna formed in the first area.

7. (Rejected) The power transfer system of claim 1 wherein the victim loop is a coil of wire having a solenoid shape.

8. (Rejected) The power transfer system of claim 1 wherein the base further comprises one or more additional source loops.

9. (Rejected) The power transfer system of claim 1 wherein the peripheral device further includes:

a rechargeable battery, and

a recharging circuit coupled between the victim loop and the rechargeable battery.

10. (Rejected) The power transfer system of claim 1, further comprising:

a data transmitter coupled to the peripheral device, and

a data receiver coupled to the base unit.

11. (Rejected) The power transfer system of claim 10, wherein the data transmitter sends a signal selected from the group consisting of radio frequency, infra-red, and ultrasonic.

12. (Rejected) The power transfer system of claim 10 wherein the data transmitter is structured to send wireless signals and the data receiver is structured to receive wireless signals.

13. (Rejected) The power transfer system of claim 1 wherein the peripheral device is additionally in operative condition when not inductively coupled to the base device.

14. (Rejected) A system for supplying power to a computer mouse, comprising:

a base unit having a power signal input connectable to a power source, and having a non-planar magnetic source loop coupled to the power signal input, the source loop comprising an axis arranged substantially perpendicular to a planar surface of the base unit; and

the computer mouse having a magnetic victim loop coupled to a load circuit within the mouse.

15. (Rejected) The system of claim 14, further comprising a rechargeable battery in the computer mouse, and wherein the load circuit is coupled to the rechargeable battery.

16. (Rejected) The system of claim 14 wherein the load circuit is structured to drive a mouse positional circuit within the computer mouse.

17. (Rejected) The system of claim 14 wherein the load circuit is a wireless data transmitter.

18. (Rejected) The system of claim 14 wherein the power signal input is coupled to a serial bus, and, when the serial bus is powered, the base unit is structured to supply power from the serial bus to a source loop signal generator, which is coupled to the magnetic source loop.

19. (Rejected) The system of claim 18 wherein the source loop signal generator comprises an oscillator circuit.

20. (Rejected) The system of claim 19 wherein the oscillator circuit can generate a signal having a frequency at or above 60 cycles per second.

21. (Rejected) The system of claim 15, further comprising a docking cradle shaped to receive the computer mouse, the docking cradle having a battery recharging circuit.

22. (Rejected) The system of claim 14, wherein, during a normal operating position of the computer mouse, the magnetic source loop and the magnetic victim loop are horizontally overlapped.

23. (Rejected) A method of powering a computer peripheral device having a victim loop coupled to circuitry of the peripheral device, the method comprising:

accepting a power signal at a power input; and

applying a source loop driving signal to a source loop solenoid while the source loop solenoid is proximate to the computer peripheral device;

wherein the source loop solenoid has an axis substantially perpendicular to a planar surface over which the peripheral device is moved.

24. (Rejected) The method of claim 23 wherein the power signal is the source loop driving signal.

25. (Rejected) The method of claim 23, further comprising rectifying the power signal to a source loop driving signal.

26. (Rejected) The method of claim 23 wherein the power signal is coupled to a bus on a personal computer.

27. (Rejected) A method of recharging a rechargeable battery in a computer mouse that has a magnetic victim loop coupled to a battery recharging circuit, the method comprising:

creating a magnetic field by driving a magnetic source loop solenoid with a magnetic source loop driving signal; and

causing the magnetic field to interact with the magnetic victim loop in the computer mouse;

wherein the magnetic source loop solenoid has an axis substantially perpendicular to a planar surface over which the computer mouse is moved.

28. (Rejected) The method of claim 27, further comprising:

accepting a power signal from a power source; and

converting the power signal into the magnetic source loop driving signal.

29. (Rejected) The method of claim 28 wherein converting the power signal comprises generating an oscillating signal from the power signal using a pulse width modulation circuit.

30. (Rejected) The method of claim 28 wherein accepting a power signal from a power source comprises accepting a power signal from a computer bus.